



Refurbishment of three former Corn Mill Buildings in Millhouses Park, Sheffield

It is the vision of Friends of Millhouses Park (FOMP), in partnership with Sheffield City Council (SCC), to bring three former Corn Mill Buildings back into community use. Located to the southwest of Sheffield City Centre, Millhouses Park is used by local residents as well as attracting visitors from much further afield. Originally part of the Beauchief Abbey estate, the three Mill Buildings, named the Small Building, Medium Building and Large Building, are now in a state of disrepair. As part of the refurbishment of the buildings, it is the aim of FOMP to make the buildings as energy efficient as possible and utilise renewable energy resources to ensure their sustainability for generations to come.



Dr Vicki Shaw was commissioned by Jane Hunter of FOMP to undertake a feasibility study to explore the opportunities for using renewable energy technologies to meet the electricity and heat demands of the Mill buildings. The study established an energy baseline from existing on-site energy use as well as estimating energy consumption for possible end uses of the complex. The study examined the feasibility of solar photovoltaics (PV), solar thermal hot water panels, heat pumps, small-scale wind power, automated wood pellet stoves, biomass boilers and micro-hydro power.

Published in December 2010, the Main Report and Appendices were produced together with building-specific reports for the Small Building, Medium Building and Large Building. The reports reviewed the capital and running costs, costs per kilowatt hour (kWh) and grant funding for each selected technology and recommended the most appropriate options for each building and the site. The study also emphasised the need for energy efficiency improvements throughout the Mill Building Complex.

One of the main outputs of the feasibility study was a summary of the most technically and economically viable options for the buildings. Making the Small Building water-tight was an essential part of the first phase of the re-development of the Mill Building Complex. A new roof was planned using original slate tiles. The feasibility study allowed FOMP to make an informed decision to opt for a roof-mounted solar PV array as part of the first re-development phase.



Funding for the feasibility study was provided by the Big Lottery Fund's Community Sustainable Energy Programme (CSEP) and SCC's South West Community Assembly Climate Change Fund 2010/2011 /You Choose Fund.

The Official Launch of the Mill Building Restoration Project by the Lord Mayor of Sheffield Councillor Dr Sylvia Dunkley took place in the Mill Courtyard on the 14th June 2011. Around 100 people attended the launch including Vicki Shaw, FOMP committee and members and key local stakeholders including residents and users of Millhouses Park.

Former Deputy Prime Minister Nick Clegg also visited Millhouses Park on two occasions, one where he had to trudge through the snow to look over the building.

Under the CSEP, FOMP were awarded 50% grant funding for the installation of the solar PV system. Planning permission was granted and match funding for the installation came from SCC's South West Community Assembly Climate Change Fund 2011/2012.



Above: Completed Small Mill Building

Work finally commenced on site in November 2012 and continued through one of the longest, hardest winters for years. By April 2013, work was completed on site (with snow still on the ground). During Spring 2014, the site went out to market via SCC and by Spring 2015, a potential developer continues negotiations with SCC and FOMP.

The whole project has been a joint effort between Sheffield City Council and Friends of Millhouses Park. The overriding aim has been to try and ensure that the site retained low carbon credentials in line with its original form and function, having being powered by water power in the 17th century and now being supplied with solar PV and ground source heat pumps in the 21st century. If the Friends can enable suitable development of the site whilst maintaining community presence and involvement and bring the whole site back into functional use, that will be a massive achievement.

This case study was compiled in association with:

Friends of Millhouses Park **A Better Park for Everyone**

<http://friendsofmillhousespark.org/>